



Timika Shafeek-Horton Deputy General Counsel

550 South Tryon Street Charlotte, NC 28202

Mailing Address: DEC45A / P.O. Box 1321 Charlotte, NC 28201

> o: 704-382-6373 f: 980.373.8534

Timika.Shafeek-Horton@duke-energy.com

July 9, 2013

### **VIA ELECTRONIC FILING**

Mrs. Jocelyn G. Boyd Chief Clerk / Administrator Public Service Commission of South Carolina 101 Executive Center Drive, Suite 100 Columbia, South Carolina 29211

RE: Application Regarding the Acquisition of Progress Energy, Incorporated by

Duke Energy Corporation and Merger of Progress Energy Carolinas,

Incorporated and Duke Energy Carolinas, LLC PSC Docket No. 2011-158-E; Order No. 2012-517

Dear Mrs. Boyd:

In Order No. 2012-517 Approving Joint Dispatch Agreement ("JDA"), the Public Service Commission of South Carolina ("Commission") conditioned its approval of the JDA on, among other things, Duke Energy Carolinas, LLC's ("DEC") and Duke Energy Progress, Inc.'s ("DEP") filing with the Commission all reports the North Carolina Utilities Commission required DEC and DEP to file in Order *Approving Merger Subject to Regulatory Conditions and Code of Conduct*, issued June 29, 2012, in Dockets Nos. E-2, 998 and E-7, Sub 986 (Order Approving JDA at 43).

One report that must be filed in NC is Potomac Economics' report to FERC concerning DEC's and DEP's compliance with the interim and permanent mitigation measures meant to address FERC's market power concerns stemming from the DEC and DEP merger. The reports Potomac has issued April 1, 2013 through June 30, 2013, are attached. The reports find DEC and DEP in compliance with FERC interim mitigation measures and permanent market power mitigation projects advancing as approved by FERC.

Please let me know if you have any questions.

Mrs. Jocelyn G. Boyd July 9, 2013 Page 2

Please let me know if you have any questions.

Sincerely,

Timika Shafeek-Horton
Deputy General Counsel

### TSH/bml

cc: Shannon Hudson, ORS
Courtney D. Edwards, ORS
John Flitter, Director of Electric and Gas Regulation
Parties of Record

Potomac Economics, Ltd. 9990 Fairfax Boulevard, Suite 560 Fairfax, Virginia 22030



Telephone: 703-383-6270 Facsimile: 703-383-0796

April 30, 2013

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: Duke Energy Corporation, Progress Energy, Inc.
Docket No. EC11-60-004, et al.

Dear Ms. Bose:

Pursuant to the Commission's June 8, 2012 order in the above-captioned proceeding, the Commission ordered Permanent Mitigation Measures to address market power concerns associated with the merger between Duke Energy Corporation and Progress Energy, Inc.<sup>1</sup>

The Permanent Mitigation Measures involve construction of various transmission facilities. As the Independent Monitor, Potomac Economics, Ltd. is required to issue quarterly reports to track the progress of the mitigation projects. Included for filing is our report for the First Quarter of 2013.

Respectfully submitted,

POTOMAC ECONOMICS, LTD.

By: /s/ Robert A. Sinclair

Robert A. Sinclair, Vice President

Order Accepting Revised Compliance Filing Slip Op. at ¶107, (June 8, 2012).

### INDEPENDENT MONITORING REPORT ON PERMANENT MITIGATION MEASURES FOR DUKE ENERGY CORPORATION AND PROGRESS ENERGY INC.

First Quarter 2013

Prepared by:



Potomac Economics, Ltd.
Independent Monitor

**April 30, 2013** 

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### I. OVERVIEW

This is the independent monitoring report for the First Quarter of 2013 on Permanent Market Power Mitigation Measures relating to the merger between Duke Energy Corporation and Progress Energy (the "Companies").

Independent monitoring of the permanent mitigation measures was required by the Federal Energy Regulatory Commission (the "Commission") in its Order in Docket No. EC11-60-000, et al. to address certain merger-related market power concerns. In particular, using the Delivered Price Test, which is the empirical market power screen used by the Commission to calculate market shares in relevant markets potentially affected by a merger, the Commission determined that the merged entity would possess unacceptable levels of market power in certain relevant markets. To address the Commission's concerns, the Companies proposed, and the Commission accepted, permanent, structural mitigation measures consisting of the construction of new facilities to expand transmission capability into the relevant markets in question. The expanded import capability in the relevant markets would increase supply and reduce the Companies' market share below the thresholds established in the Delivered Price Test.

In approving the permanent mitigation measures, the Commission required that the Independent Monitor track the progress of the transmission projects comprising the permanent mitigation and file quarterly reports on whether the projects are proceeding on time and within the original scope.

Accordingly, in this report, we describe the nature of and the progress with permanent mitigation projects. Overall, we find that the projects are advancing in accordance with the scope and time line originally established by the Companies and approved by the Commission.

### II. PERMANENT MITIGATION MEASURES

The Companies' proposed permanent mitigation measures to address the Commission's screen violation that occurred in both summer and winter periods in markets corresponding to the Duke Energy Carolina Balancing Authority Area ("BAA") and the Progress Energy Carolinas BAA. An increase in the transmission import capability into the BAAs results in a reduction in concentration at those locations. As a consequence, by increasing the import capability on the PJM-Duke interface and the PJM-Progress interface, additional supply is assumed to be deliverable to the BAAs, which reduces the concentration to within acceptable limits in the Commission's market screen.

Accordingly, in its March 2012 Compliance Filing ("Compliance Filing") the Companies proposed (and the Commission accepted) seven transmission projects designed to increase the import capability on the interfaces (by approximately 1500 MW on the PJM-Duke interface in both seasons and by approximately 2400 MW on the PJM-Progress interface in summer).

In addition to these seven projects, the Companies committed to accelerating the construction of the already-planned Greenville-Kinston DuPont 230kV Line in order to bring the in-service date forward from 2017 to 2015. Accelerating this project is required to ensure certain related mitigation projects are able to be placed in service as proposed. Therefore, there are eight projects that are currently under development to satisfy the permanent mitigation measures. These seven projects are summarized in Table 1. The table also shows the Commission-approved in-service date and the Projected Completion Date provided by the Companies in its most recent Quarterly Status Report (The Companies' 1<sup>st</sup> Quarter Status Report is attached hereto as Appendix 2).

Table 1: Transmission Expansion Projects under the Permanent Mitigation Measures

	Project (location)	Cost (millions)	Commission- Approved In- Service Date	Projected Completion Date
1	Antioch 500/230 kV - Replace two existing transformers with larger capacity ones (Duke Energy)	\$50	7/1/2015	6/1/2014
2	Lilesville-Rockingham 230 kV - Construct new third line (Progress East)	\$15.70	7/1/2014	12/2/2013
3	Roxboro-E Danville 230 tie –add a series reactor to one Roxboro-E Danville 230 kV line and revise operating procedures (Progress East)	\$6.60	7/1/2014	3/31/2014
4	Reconductor Kinston Dupont - Wommack 230 kV line (Progress East)	\$18	7/1/2014	5/30/2014
5	Person - Halifax 230 kV Line, reconductor 20 miles of Dominion Virginia Power portion of line (Progress East)	\$16	1/1/2015	5/4/2014
6	Wake – Carson 500 kV Line, replace existing wave traps with 4000 amp wave traps at both terminals and rework protective relaying.	\$1.5	6/1/2014	5/13/2013
7	Greenville-Kinston DuPont 230 kV line	see notes	7/1/2015	5/30/2014
8	Durham - E. Durham 230 kV line, Uprate CT Ratio to 3000 amps (Progress East).	\$0.5	6/1/2014	Completed

Notes: "Commission-Approved In Service Date" is the in-service date based on the Companies' Commission-approved compliance filing, which contained estimated contruction times. Greenville-Kinston Dupont project started prior to compliance filing and is not technically a mitigation project; the Companies committed to accelerate this project to support other mitigation projects. Source: Companies' Revised Compliance Filing, March 26, 2012.

### A. Project Scope

As discussed above, the monitoring of the permanent mitigation measures was aimed at tracking the scope and timing of the proposed upgrades. To track the project scope, we rely on information from the Companies Compliance Filing, which contains a description of the mitigation projects, and from the Companies Quarterly Status Report, which reports on the progress of the mitigation projects, the milestones, and timelines, among other information. .

We have prepared Appendix 1 which is a comparison between the description of each mitigation project as is was presented in the Companies Compliance Filing and it description in the Companies' Quarterly Status Report. We find that the current projects retain the same scope as initially proposed.

### B. In-Service Dates

The Companies' Quarterly Status reports provide summary tables of major Activities or Milestones for each project and reports the Planned and Projected Completion Dates for each activity or milestone.

If a particular milestone has been started, then the summary tables report the status. The status for most milestones that have started is either "Complete" or "On-Schedule". Other possible status designations are: (a) "Behind-Recoverable", which means the milestone is behind schedule but will either meet its planned completion date or will not impact the completion dates for the subsequent milestones; and (b) "Behind-Unrecoverable", which means the milestone is behind schedule and will not meet its planned completion date and may impact the completion dates for the subsequent milestones.

No projects were reported as behind schedule. One project, the Roxboro-E. Danvile 230 kV tie, has had completion dates advanced, making it about three months ahead of the schedule reported in the previous Quarterly Status Report. As we reported in our previous Report, construction on the Durham-East Durham 230 kV line was completed and the new facilities have been energized. The remaining projects have not had their schedules changed since the last Status Report.

Table 1, introduced above, shows the Commission-approved in-service dates and the currently projected in-service dates. In addition to the completed Durham-East Durham 230 kV line project, which was completed more than one-year ahead of the Commission-Approved schedule, all of the other projects are also projected to be completed ahead of schedule by at least one month. Five of the remaining seven projects are expected to be completed at least six months ahead of schedule. Based on our review of the project milestones and schedules, we find no concern that the projects will not be completed on time.

### C. Project Risks

The Companies' Quarterly Status Reports provide summaries of "major project risks." These risks are related to either cost risks or commitment date risks. We are mainly concerned with risks associated with commitment date because these can delay the projects and adversely affect the efficacy of the mitigation measures.

Initially, all projects had at least one major project risk associated with a time delay, except the Durham-East Durham 230kV project. Each major project risk is listed as either "not triggered" or "triggered" depending on whether the risk has come to realization or not. For example, equipment delivery delays are risks common to a number of projects. If a delay is realized, then the risk factor is "triggered". If the schedule is holding, then "not triggered" is recorded. Once the major risk is passed (for example, if equipment is in place), the major risk factor is moot. A number of major risk factors have become moot because the window within which they could have been realized has passed. This is a favorable development as it eliminates sources of potential delay. Furthermore, there have been six major risk factors triggered among the projects. None have introduced delays to the associated projects.

Major project risks are rated regarding likelihood (low, moderate, or high) and impact (minimal, moderate, or significant). Our concern would be heightened in circumstances of "high" likelihood and "significant" impact. Of the major project risks associated with a time delay, there are two projects where the major project risk likelihood is estimated as "moderate" or "high" and the estimate impact is rated as "significant." These projects are:

- (1) Greenville-Kinston DuPont 230kV construction; and
- (2) Kinston DuPont Womack 230kV line reconductoring.

In both of these projects, the risk is related to a major storm diverting resources to storm recovery. Storm risks are a threat to all projects, but the risks are amplified in the case of the line construction projects because line construction crews may be reassigned to repair damaged transmission facilities. These risks were the same ones highlighted in our previous report. No other major risks have emerged.

### III. SUMMARY

In summary, we find that the projects are advancing in accordance with the scope and time line originally established by the Companies and approved by the Commission.

## First Quarter 2013

# Appendix 1 - Scope of Projects

	Project	Orignal Description in Compliance Filing	Current Scope (Quarterly Status Report, Q1 2013)
-	Antioch 500/230 kV - Replace two existing transformers with larger capacity ones (Duke Energy)	To meet the proposed capacity increase, the project will replace the existing transformers with two 1500 MVA transformers for a total capacity of 3000 MVA. The three major elements of the project are: 1. Specification, award of order and delivery of transformers: 2. Engineering and installation of electrical/telaying upgrades to the transformer protection scheme and the necessary 500 kV/230 kV switchyard modifications at Antioch. Tie and at the nearty Mitchell River Tie (on the Antioch-Mitchell River 230 kV Imp.) which includes the replacement of two breakers at Mitchell River Tie; and 3. Removal of the existing transformers and ustallation of the new transformers.	Currently, there is 1500 MVA of total installed capacity at the site. To meet the proposed capacity increase, the project will replace the existing transformer banks with two 1500 MVA banks for a total capacity of 3000 MVA. Project funding will provide for the entire capacity increase including these major activities: 1) Specification, award of order and delivery of the transformers: 2) Engineering and installation of electrical/relaying upgrades to the transformer protection scheme and the necessary 525t.Vi230kV switchyard evid modifications: 3) Installation of the new transformers including regging/hauling from the rad sking to the transformer pads as well as the removal of the existing transformers. 4) Replacement of two 230kV over-dutied line breakers at Mitchell River Tic.
~	Lilesville-Rock ingham 230 k.V. – Construct new third kine (Progress East)	The Labesville-Rockingham 230 kV line construction is expected to cost approximately \$15.7 million with a two year lead time for engineering and construction. The length of the proposed line is approximately 13 miles. PEC already owns the necessary right-of way and has the necessary CPCN from the state of North Carolina. There are no significant permitting or other issues for this project. Routine permits from state and county 1 agencies will be required. None of these are expected to be an impediment to meeting the cost and schedule targets above.	Construct a 14 mile long new transmission line on existing right-of-way between the Rockingham 230kV Substation and the Likesville 230kV Switching Station. Construction will be light duty direct-burned streel 11-frame using 2515kcmil conduction. One 230kV the breaker will be installed in the Likesville Switching Station. The existing Robinson Plant 230kV Line will be relocated into a new hay position at the Rockingham Substation to open a position for the Likesville Line. Three new 230kV breakers are required at Rockingham.
m	Roxboro-E Danville 230 ticadd a series reactor to ore Roxboro-E Danville 230 kV line and revise operating procedures (Progress East)	Addition of a series reactor on the Roxboro-East Danville 230 to kV line. The Roxboro reactor addition is estimated to cost approximately \$6.6 million, with a total time to design, acquire materials and construct of two years. PEC currently owns specific property that can be used for the reactor site, and it is expectable to specific property that can be used for the reactor site, and it is expected that the reactor will be placed along the existing line right-of-way. There are no significant permiting issues. Routine permits from state and country agencies will be required.	Construct a 230kV scries reactor station adjacent to the existing Concord 230kV Substation. Loop the Roxboro-AEP East Danville 230kV South Line into the new reactor station and connect the reactor station 230kV bus to the Concord 230kV bus, and replace the existing 3-point relay scheme on the South Line with standard relay protection. Three new 230kV breakers and four single phase 230kV reactors (1-spare) are required in the Reactor Station. AEP will upgrade the summer emergency rating of their Danville line to 384 MVA by 01/31/2013. AEP will be responsible for their necessary relay setting changes at their AEP East Danville 230kV Substation due to the addition of the Concord Reactor Station.
4	Reconductor Kinston Dupont – Wommack 230 kV line (Progress East)	The reconductoring project would replace existing conductors and transmission structures to support a bundled conductor design. The reconductoring of the Kinston Dupont-Wommack 230 kV line is expected to cost approximately \$18 million. The existing Kinston Dupont-Wommack line is approximately, 20 miles long, and the reconductoring along with associated required changes to the mediary equipment (CTs) will result in an increase in rattue from \$57 to 797 MVA.	Replace the existing single 1272kcmil conductor with bundled 795kcmil ACSS conductor. Replace existing wood structures and some existing steel structures with light duty steel structures to support the bundled conductor. Remainder of the existing light duty steel H-frame structures remains in place.

## Monitoring Report on Permanent Mitigation Measures Duke Energy Corporation and Progress Energy

	Project	Original Description in Compliance Filing	Description in Morthly Report (September 2012)
20	Person - (DVP) Haiffax 230 kV Ling, reconductor 20 miles of DVP portion of line (Progress East)	The Dominton portion of the Person-Halifax 220 kV tie line is approvmately 20.4 miles in length. The reconductoring project would replace existing conductors with greater capacity and would replace some of the transmission structures to achieve a summer rating of 712 MVA. Currently, there are no 20 miles of DVP portion of plurate this project absent the merger. The reconductoring of the Person-Halifax 220 kV tie with Dominion will be accomplished within two and one half years with agreement from Dominion. The expected cost is about \$16.2 million. Reconductoring is not expected to present any significant permuting issues.	Upgrade the Person-Halifav 230kV line to 712 MVA (sunwer raling).  Dominin Virgina Power (DVP) will re-conductor 20 miles of DVP's section of the Person - DVP Halifav 230kV Line by replacing the existing 2-545.6 korml ACAR conductor. Work will be performed by DVP - Approximately 30 angle H-fiarne structures and approximately 20 tangent H-fianne structures are anticipated to require replacement Line derivances will be required to replace the angle structures Billing will occur on a quarterly schedule and in advance of work performed. Once actuals are received the amounts will be evaluated and adjusted accordingly.
vo	Wake – Carson 500 kV The replacement of the without replace existing wave te has with Dominon. Extraps with 4000 amp wave million, including am necettraps at both terminals and protective relaying equipm rework protective relaying approximately 15 months.	Wake – Carson 500 kV — The replacement of the wave traps on the Wake-Carson 500 kV Line, replace existing wave its line with Dominion. Expected to cost approximatels \$1.5 traps with 4000 anya wave million, including an necessary engineering for changes to traps at both terminals and protective relaying equipment, and can be completed in rework protective relaying approximately 15 months.	At Wake 500k V Substation, replace the existing 3000 amp line trap with a 4000 amp trap and replace 6 3000/5 CTT's with 4000/5 CTT's Replace rebs line panel at Wake Sub and modify existing rebs panel. Coordinate with Dominsion Virginia Power to up-rate the line trap in their DVP's Carison 500k. V Substation PEC will rearbuse DOM for all cost incurred. Billing will occur on a quarterly soledule and in advance of work performed. Once actuals are received the amounts will be exhalated and adjusted accordingly. Work scope for Dominion requires replacement of their 3000A line trap with a 4000A and rebs setting revisions.
	Durham - E. Durham 230 k.V. line, Uprate C.T. Ratio to 3000 amps (Progress East)	The Durham-fast Durham Current Transfer uprate is expected to cost less than \$500,000, and can be scheduled within a two year time window.	Up-rate Current Transfer natus at the East Durham 230k V Substation and the Durham 500k V Substation to 3000/5 by modifying relay settings. Dake Energy will need to upgrade their relay settings at their East Durham 230k V Substation to 300kt). Dake will need to change out 5 meters and potentially at RTU at their East Durham 230k V Station Current Transfers in the circuit breakers will not require replacement.

APPENDIX 2: DUKE-PROGRESS ENERGY MERGER PROJECT
STATUS REPORT

**DUKE ENERGY** 

### Duke-Progress Energy Merger Projects

FERC 1st Qtr, 2013 Status Report

(Status Through March 31, 2013)

Prepared by: Steve Wilson, Sr. Project Manager 4/22/2013

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Portfolio Summary	
Roxboro - E. Danville 230kV Tie: Add Series Reactor (Concord Reactor Station)	
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Greenville – Kinston DuPont 230kV Line: Construct	{
Kinston DuPont – Wommack 230kV Line: Reconductor	10
Wake – Carson 500kV Line: Replace Line Traps and Revise Relaying	1
Durham – East Durham 230kV Line: Uprate CT Ratios to 3000 Amps	14
Antioch 500/230kV Substation: Replace Two Transformer Banks	16
Person – (DVP) Halifax 230kV Line: Reconductor DVP Section (DVP work)	18

## Portfolio Summary

Total Program Health:

(favorable, stable)

(favorable, stable) Financial

Portfolio Schedule Status

	FERC Agreement	Scheduled	<b>Scheduled In-Service</b>	
Project Name	In-Service Date	In-Service Date	Date Status*	
Roxboro-E. Danville 230kV Tie: Add Series Reactor (Concord Reactor Sta.)	07/01/14	06/01/14	On track	
Lilesville-Rockingham 230KV Line #3 Construct	07/01/14	06/01/14	On track	
Greenville-Kinston DuPont 230KV Line Construct	12/31/14	06/01/14	On track	
Kinston DuPont-Wommack 230KV Line Re-conductor	07/01/14	06/01/14	On track	
Wake-Carson 500kV Line Replace Line Traps and Revise Relaying	06/01/14	06/01/14	On track	
Durham-East Durham 230KV Line-Uprate CT Ratio to 3000 amps	06/01/14	06/01/14	On track	
Antioch 500/230kV Substation: Replace Two Transformer Banks	07/01/15	06/04/14	On track	
Person-(DVP) Halifax 230kV Line Re-conductor DVP Section (DVP work)	01/01/15	06/01/14	On track	
* on track / at risk / unrecoverable				

Financial View with AFUDC and Indirects in \$thousands - March 2013 Closing

	Project To- Date Actual Cost	Actual Cost 2012	Current Estimte 2013	Current Estimate 2014	Current Estimate 2015	Total Current Estimate	FERC Merger Agreement Estimate (1)	Variance FAV (UNFAV)
otal (all work) excluding contingency	\$25,554	\$8,975	\$78,410	\$28,567	\$183	\$116,136	\$144,543	\$28,407
Assigned contingency (2)						\$13,422	80	
In-assigned contingency (3)						\$10,361		
otal estimate with contingency (4)						\$139,919	\$144,543	\$4,624
otal Capital (contingency included in total only)	\$25,344	\$8,881	\$66,541	\$19,084	\$183	\$118,473		
Otal O&M	\$210	\$94	\$11,869	\$9,483	0\$	\$21,446		

(1) March filing plus \$7.8M AFUDC (2) Assigned contingency is funding to cover the financial impact of identified remaining untriggred or unexpired risks should they occur. (3) Unassigned contingency is <u>savings</u> held in the program to cover unexpected emergent risks. (4) Total estimate with contingency variance is <u>savings</u> released from the portfolio of projects to fund other company business.

### **Project Information**

Project Name:	Roxboro - E. Danville 230kV Tie: Add Series Reactor (Concord Reactor Station)
Reporting Period:	April 2013
Project Manager:	Billy Harrell (PEC)/ John Schechter (AEP-Relay)/ Mohammed Ahmed (AEP –Line)
<b>Current Phase:</b>	Execution Construction

### **Safety Summary:**

No safety incidents or events

### Scope of Work:

Construct a 230kV series reactor station adjacent to the existing Concord 230kV Substation. Loop the Roxboro-AEP East Danville 230kV South Line into the new reactor station and connect the reactor station 230kV bus to the Concord 230kV bus, and replace the existing 3-point relay scheme on the South Line with standard relay protection. Three new 230kV breakers and four single phase 230kV reactors (1-spare) are required in the Reactor Station. AEP will upgrade the summer emergency rating of their Danville line to 384 MVA by 01/31/2013. AEP will be responsible for their necessary relay setting changes at their AEP East Danville 230kV Substation due to the addition of the Concord Reactor Station.

### **Monthly Accomplishments:**

- Substation construction work is in progress. Foundations 100%, Conduit 100%, Grounding 99%, Cable Trench 100%, Overhead Construction 73%, 6" Conduit Duct Bank 100%, Steel Poles/Lighting Mast 95%.
- Relay construction activities are in progress at the Concord Reactor Station, the Concord 230/115kV Sub, and the Roxboro 230kV Switchyard.
- Line Construction completed installation of OPGW pull from the Concord Reactor Station over to the Roxboro 230kV Switchyard, completed line work on the Roxboro —AEP E Danville South 230kV line and the Roxboro — AEP E Danville North 230kV line, and installation of the new Concord 230/115kV Substation tap.
- Clearance is currently in progress on the Roxboro AEP E Danville South 230kV line and the Concord 230/115kV Sub. Scheduled to end on 06/06/13.

### **Challenges this Reporting Period:**

None

Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target - Current Est.) FAV / (UNFAV)
\$7,326,000	\$6,443,000	\$4,964,000	\$2,852,000	\$6,566,000	(\$123,000)

 The cost variance is a result of lowering the Current Approved Target last month from \$6.7M to \$6.4M based on results EOD cost estimates and afterwards additional material was issued which resulted in cost overruns. Last month's Current Approved Target reduction was based on labor savings and lower than expected contractor cost.

**Project Activities/Milestones** 

Activity or Milestone	Pianned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Conceptual Design	03/19/12	05/25/12	05/25/12	Complete
Complete Site Design	05/29/12	08/15/12	08/15/12	Complete
Order Long Lead Materials/Equip.	05/29/12	08/31/12	08/31/12	Complete
Approve Environmental Permit	05/29/12	09/13/12	09/13/12	Complete
Complete Site Clearing and Grading	09/24/12	12/10/12	12/10/12	Complete
Complete Line Engineering	07/16/12	12/21/12	12/21/12	Complete
Complete Substation Engineering	05/14/12	02/01/13	02/01/13	Complete
Complete Relay Engineering	05/29/12	02/01/13	02/01/13	Complete
Complete Line Construction	03/18/13	06/06/13	06/06/13	On Schedule
Complete Substation Construction	12/18/12	06/06/13	06/06/13	On Schedule
Complete Relay Construction	12/19/12	06/06/13	06/06/13	On Schedule
Complete Substation Fine Grading	04/29/13	08/02/13	08/02/13	
AEP Complete Relay Setting Changes	06/05/13	06/05/13	06/05/13	
Commission (energize)	05/16/13	06/06/13	06/06/13	
Upgrade AEP Danville – East Danville 230kV Line	03/31/14	03/31/14	03/31/14	

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comment
LD Steel Poles	11/7/2012A	3/4/2013A	Delivered to site. T&B 368108R 93,502,494
Site Clearing & Grading	8/20/12 A	9/13/12 A	Completed. Phillips & Jordan
230kV Series Reactors (4)	07/18/12A	01/21/13 A	Delivered to site. (01321039/00632330)
230kV 3000A Cir. Bkrs. (3)	In Stock	In Stock A	GMX Stock, delivered to site
230kV 3000A Line Trap (1)	06/19/12A	01/07/13 A	Delivered to site. (01337476/00636135)
230kV CCVT's (7)	07/06/12A	01/20/13 A	Delivered to Site. (01321210/00630954)
230kV 50kVA Power Pot	In Stock	In Stock A	GMX Stock, delivered to site
Install Sub Foundations	10/12/12A	12/7/12A	Completed \$619,212 Elite Construct, 221227-197

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
Grading bid higher than budgeted	Moderate	Moderate	\$180,000	09/11/2012	Triggered
Delay in site grading permit	Low	Minimal	\$82,000	09/13/2012	Not Triggered
Site grading schedule impact due to weather	Low	Minimal	\$82,000	<del>12/10/2012</del>	Not Triggered
Subsurface and Overhead construction contract bids higher than estimated	Moderate	Moderate	\$217,267	12/10/2012	Triggered
Site grading schedule impact due to rock	High	Minimal	<del>\$75,000</del>	<del>12/10/2012</del>	Not Triggered
Could incur greater qty of variable units cost than estimated in site grading bid.	Moderate	Minimal	<del>\$85,000</del>	01/19/2013	Not Triggered
Equipment delivery delays	Moderate	Moderate	\$180,000	03/16/2013	Not Triggered
Scope changes during const.	Moderate	Moderate	\$150,000	06/06/2013	Not Triggered
Delay in completing AEP Work	Low	Minimal	\$45,000	03/31/2014	Not Triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? weeks

### **Project Information**

Project Name:	Lilesville – Rockingham 230kV Line #3: Construct
Reporting Period:	April 2013
Project Manager:	Phil Williams
Current Phase:	Execution

### **Safety Summary:**

No safety incidents or events

### Scope of Work:

Construct a 14 mile long new transmission line on existing right-of-way between the Rockingham 230kV Substation and the Lilesville 230kV Switching Station. Construction will be light duty direct-buried steel H-frame using 2515kcmil conductor. One 230kV tie breaker will be installed in the Lilesville Switching Station. The existing Robinson Plant 230kV Line will be relocated into a new bay position at the Rockingham Substation to open a position for the Lilesville Line. Three new 230kV breakers are required at Rockingham.

### **Monthly Accomplishments:**

ROW clearing continues to go well and is on schedule to be completed by the end of April. Line construction work (T&D Solutions) has begun. Design phase activities for the Rockingham and Lilesville substation remote end scopes have been completed. Clearance planning for all of the work to be performed at Rockingham 230kV Sub continues.

### **Challenges this Reporting Period:**

None

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$17,427,000	\$15,136,000	\$4,368,000	\$3,642,000	\$15,027,000	\$109,000

 The favorable cost variance is due to increased estimate accuracy coming out of design and favorable contracting.

**Project Activities/Milestones** 

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Substation Design Lilesville	12/01/12	04/23/13	04/23/13	On schedule
Complete Clearing/Erosion Control Plan	06/14/12	08/31/12	08/31/12	Complete
Submit Environmental Permits	08/01/12	09/04/12	09/04/12	Complete
Complete Substation Engineering R'ham	12/07/12	04/02/13	04/02/13	Complete
Complete Relay Engineering	12/07/12	04/26/13	04/26/13	On schedule
Complete Line Engineering	02/22/12	10/29/12	10/29/12	Complete
Complete ROW Clearing	11/28/12	04/30/13	04/30/13	On schedule
Complete Line Construction	03/01/13	12/02/13	12/02/13	On schedule
Complete Substation Construction	06/17/13	12/02/13	12/02/13	
Complete Relay Construction	08/08/13	12/02/13	12/02/13	
Complete Substation Fine Grading	11/15/13	12/02/13	12/02/13	
Commission (energize)	12/02/13	12/02/13	12/02/13	

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

**Major Materials and Services** 

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
Engineered Poles	09/15/2012 A	03/05/2013 A	368108 r.486, delivery date moved to March to support schedule
LD Steel Poles 11/12/2012 A		3/5/2013A	\$1.037,060, Thomas and Betts, 368108 R504, delivery date moved to support schedule
ROW Clearing	10/9/2012 A	10/29/12 A	\$1299,353 – Burford Tree, 609800 WA 8
Construct Trans. Line	12/10/12 A	1/21/13 A	\$2.5M - T&D Solutions 549100-12
230KV,Breakers (1)	In Stock	In Stock	GMX Stock Tagged for Project
230KV CCVT (3)	9/28/12A	5/3/13P	\$17,874.00 (01353645/00643084)

**Major Project Risks** 

Risk Item	Likelihood	impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
Late material delivery	low	moderate	\$300,000	5/1/2013	Not triggered
Permits not obtained by construction start	low	moderate	\$300,000	2/5/2013	Not triggered
Major storm take construction resources away	low	moderate	\$300,000	12/1/2013	Not triggered
Construction contract awards higher than estimated	moderate	significant	\$500,000	1/3/2013	Triggered
Scope changes during const.	moderate	moderate	\$200,000	12/1/2013	Not triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? Weeks

Total: \$800,000 (EMV of remaining risks)

### **Project Information**

Project Name:	Greenville - Kinston DuPont 230kV Line: Construct
Reporting Period:	April 2013
Project Manager:	Bob Pitts
<b>Current Phase:</b>	Execution – Design Ending & Construction Ongoing

### Safety Summary:

No safety incidents or events.

### Scope of Work:

Clear and construct a 26-mile-long new transmission line on existing right-of-way between the Greenville and the Kinston DuPont 230kV Substations. Existing Wilson, Everetts and Aurora Lines relocated. Two new 230kV breakers installed, one removed, and substantial bus reconfigured at Greenville Sub. Three new 230kV breakers and a new line terminal installed in the Kinston DuPont Sub.

### **Monthly Accomplishments:**

- Consultant Mesa continues work on design for shared right of way with Aurora-Greenville Line.
- Contractor Burford's Tree has cleared 77% of the right of way and will complete it in May 2013.
- Line construction by Coastal Power who has completed 16% of the contract work.
- Subsurface work at Greenville is 90% complete, and it is 95% complete at Kinston DuPont.
- A large portion of the Greenville Sub is de-energized under clearance from March 18 to May 17.

### **Challenges this Reporting Period:**

- The new Greenville-Kinston DuPont and the existing Aurora-Greenville lines will be double circuited for approximately 3,000 feet. Since, substation and relay construction at the Greenville substation are driving the duration of the fall 2013 Aurora-Greenville clearance, we will not install a temporary line around the section to be double circuited.
- Met with Greenville park and elected officials to review clearing and construction near our Greenville Substation. We'll install two Osprey nest platforms for them.

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$31,080,000	\$32,742,000	\$11,907,000	\$7,759,000	\$32,191,000	\$551,000

 Line clearing and construction costs estimates have increase due to several needed revisions, but the need for a temporary Aurora-Greenville line has been eliminated along with the associated O&M costs. "Current estimate" is anticipated to fluctuate between months. Present deviation is 1.7%.

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Conceptual Design	04/23/12	07/03/12	07/03/12	complete
Complete Line Clearing/Erosion Plan	07/30/12	09/28/12	09/28/12	complete
Submit Construction Permits	09/28/12	11/19/12	11/21/12	complete
Complete Substation Engineering (all)	07/09/12	12/14/12	12/14/12	complete
Complete Relay Engineering (all)	07/09/12	03/28/13	03/28/13	complete
Complete Line Engineering Ph 1 &2	07/11/12	01/29/13	01/29/13	complete
Complete ROW Clearing	11/05/12	06/28/13	05/16/13	on schedule
Complete Line Construction	12/10/12	05/16/14	05/16/14	on schedule
Complete Substation Construction	01/07/13	04/30/14	04/30/14	on schedule
Complete Relay Construction	03/18/13	04/30/14	04/30/14	
Complete Substation Fine Grading	04/03/14	05/30/14	05/30/14	
Commission (energize)	05/30/14	05/30/14	05/30/14	

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid	Delivery Date / Award Contract (P=projected)	Comments
LD Steel Poles	Phase 1: 09/10/2012 A	Phase 1: 12/02/2012 A	T&B, \$768K, 368108R482
LD Steel Poles	Phase 2: 09/14/2012 A	Phase 2: 04/02/2013 A	T&B, \$961K, Req 1393921
ACSS Conductor	Phase 1: 09/04/2012 A	Phase 1: 04/02/2013 A	Southwire, \$709K, 639886 (36 reels have been delivered, 2 remaining)
ACSS Conductor	Phase 2: 09/10/2012 A	Phase 2: 08/19/2013 P	Southwire, \$845K, 640107
ROW Clearing	10/9/12 A	10/29/12 A	\$2,649,501 Burford,609800 WA 7
Substation Construction	10/2/12A	10/26/12A	\$679,560 - Newberry, 195884-103
Construct Trans. Line	11/15/12 A	12/03/12 A	\$5.7M Coastal Power 235938-36
G'vl Sub anchor bolt cages	08/03/12 A	10/01/12A	\$145K
230KV Circuit Breaker	07/03/12 A	03/0713 A	\$271,210.00(01325035/00630664)
3000A Line Trap (2)	07/09/12 A	04/01/13 A	\$35,828.00 (01324970/00630330)
230KV CCVT (10)	07/03/12 A	04/03/13 A	\$59,580.00 (01324939/00630738)
230KV PT (3)	04/17/12 A	09/26/12A	\$27,990.00 (01292837/00618164)
230KV CT (3)	07/1/12 A	04/03/13 A	\$23,170.00 (01324910/00632507)
230KV Cir. Breakers (3)	07/18/12 A	05/03/13 P	\$325,815.00 01326035/00632408
230KV CCVT (6)	07/16/12 A	05/03/13 P	\$35,748.00 01326018/00631961
115KV Power Pot (1)	NA	In Stock	GMX Stock

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value(EMV \$'s)	Expiration Date	Status *
Late material delivery	moderate	moderate	\$950,000	11/27/2013	Not triggered
Permits not obtained by construction start	moderate	moderate	\$950,000	<del>2/28/2013</del>	Not triggered
Major storm takes const. resources away	moderate	significant	\$1,850,000	11/01/2013	Not triggered
Const. contract awards higher than estimated	moderate	significant	\$1,000,000 \$703,000	2/1/2013	Triggered
Scope changes during const.	moderate	moderate	\$500,000	6/1/2014	Triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? weeks

Total: \$4,003,000 (EMV of remaining risks)

### **Project Information**

Project Name:	Kinston DuPont - Wommack 230kV Line: Re-conductor
Reporting Period:	April 2013
Project Manager:	Bob Pitts
Current Phase:	Execution – Construction Ongoing

### **Safety Summary:**

No safety incidents or events.

### **Scope of Work:**

Replace the existing single 1272kcmil conductor with bundled 795kcmil ACSS conductor. Replace existing wood structures and some existing steel structures with light duty steel structures to support the bundled conductor. Remainder of the existing light duty steel H-frame structures remains in place.

### **Monthly Accomplishments:**

• Line construction contractor Coastal Power & Electric is 38% complete.

### **Challenges this Reporting Period:**

None.

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at	Current				Variance (Target –
FERC Filing Plus AFUDC	Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Current Est.) FAV / (UNFAV)
\$19,980,000	\$9,080,000	\$3,652,000	\$1,785,000	\$9,051,000	\$29,000

 <sup>&</sup>quot;Current estimate" is anticipated to fluctuate between months. Present deviation is less than 0.1%.

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Conceptual Design	04/23/12	07/03/12	07/03/12	complete
Complete Erosion Control Plan	07/30/12	08/31/12	08/31/12	complete
Obtain Construction Permits	09/04/12	09/28/12	09/28/12	complete
Complete Substation Engineering	07/19/12	01/18/13	01/18/13	complete
Complete Relay Engineering	07/09/12	03/28/13	03/28/13	complete
Complete Line Engineering	07/09/12	12/20/12	12/20/12	complete
Begin Line Construction	11/05/12	11/05/12	11/05/12	complete
Complete Line Construction	05/30/14	05/30/14	05/30/14	on schedule
Complete Substation Construction	04/30/13	05/30/14	05/30/14	
Complete Relay Construction	05/20/13	05/30/14	05/30/14	
Commission (energize)	05/30/14	05/30/14	05/30/14	

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
LD Steel Poles	Phase 1 - 3: 08/24/2012 A	Phase 1 -3: 09/28/2012 A	T&B, \$456K, 368108R453
ACSS Conductor	Phase 1: 09/07/2012 A	Phase 1: 04/02/2013 A	Southwire, \$456K, 639671. (24 reels have been delivered, 1 remaining)
ACSS Conductor	Phase 2: 09/10/2012 A	Phase 2: 02/25/2014 P	Southwire, \$328K Moved from 2/27/2013 to 2/25/2014 due to discovery of eagle's nest, 640104
ACSS Conductor	Phase 3: 09/10/2012A	Phase 3: 08/06/2013 P	Southwire, \$398K, 640108
Construct Trans. Line	10/12/12 A	11/05/12A	Coastal Power - \$3,099,550 235938 WA 33savings of \$545K
Substation Construction	1/7/12A	1/26/12A	Utili-Serve, \$232K, 473714 WA12 — savings of \$43K
Wommack Substation Construction	4/29/13P	5/31/13P	Kinston DuPont Sub is part of Greenville-Kinston DuPont

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
Late material delivery	moderate	moderate	\$380,000	5/9/2014	Not triggered
Permits not obtained by construction start	moderate	moderate	\$380,000	2/22/2013	Not triggered
Major storm takes construction resources away	moderate	significant	\$380,000	11/1/2013	Not triggered
Line clearance durations inadequate for scope	low	significant	\$380,000	5/30/2014	Not triggered
Construction contract awards higher than estimated	moderate	significant	\$400,000	2/22/2013	Triggered & Offset
Scope changes during const.	moderate	moderate	\$200,000	6/1/2014	Not Triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? Weeks

Total: \$1,340,000 (EMV of remaining risks)

### **Project Information**

Project Name:	Wake - Carson 500kV Line: Replace Line Traps and Revise Relaying
Reporting Period:	April 2013
Project Manager:	Billy Harrell (PEC)/ Steve Binford (DVP)
<b>Current Phase:</b>	Execution - Construction

### **Safety Summary:**

No safety incidents or events

### Scope of Work:

At Wake 500kV Substation, replace the existing 3000 amp line trap with a 4000 amp trap and replace 6 3000/5 CT's with 4000/5 CT's. Replace relay line panel at Wake Sub and modify existing relay panel. Coordinate with Dominion Virginia Power to up-rate the line trap in their DVP's Carson 500kV Substation. PEC will reimburse DOM for all cost incurred. Billing will occur on a quarterly schedule and in advance of work performed. Once actuals are received the amounts will be evaluated and adjusted accordingly. Work scope for Dominion requires replacement of their 3000A line trap with a 4000A and relay setting revisions.

### **Monthly Accomplishments:**

- Our Wake-Carson 500kV line clearance is schedule for 04/29/13 05/12/13
- Dominion has scheduled their line clearance for 4/29/13 5/10/13 their Carson 500kV work.

### **Challenges this Reporting Period:**

CT design was modified by Substation Engineering to include column ground CT's. This required
the manufacturer to modify their design and assembly. We were able to work out a favorable
delivery date by 04/29/13 for receipt of the 6 CT's, as the clearance begins on 04/29/13.

### Financial Summary (Financial View with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$1,665,000	\$883,000	\$225,000	\$203,000	\$933,000	(\$50,000)

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Conceptual Design	08/03/12	09/05/12	09/05/12	Complete
Complete Substation Engineering	09/10/12	01/11/13	01/11/13	Complete
Complete Relay Engineering	10/18/12	01/16/13	02/01/13	Complete
Complete Relay Settings	10/18/12	01/16/13	03/01/13	Complete
Begin Construction	04/15/13	04/15/13	04/15/13	Complete
Complete Substation Construction	05/10/13	05/10/13	05/10/13	On Schedule
Wake – Carson 500kV Line Clearance	04/29/13	05/12/13	05/12/13	On Schedule
Complete Relay Construction	04/15/13	05/12/13	05/12/13	On Schedule
DVP Completes Construction	03/22/13	05/10/13	05/10/13	On Schedule
DUK/PEC and Dominion Update Relay Settings at Wake and Carson	05/13/13	05/12/13	05/12/13	On Schedule
Commission (Energize)	05/13/13	05/12/13	05/12/13	On Schedule

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
500kV 4000A Line Trap (1) (PEC)	08/17/12 A	01/07/13 A	\$19,600.00 01339216/00636845
Line Panel (1) (PEC)		02/13/13 A	Purchase Order 00653720
500KV CT's (6) (PEC)	08/21/12 A	04/24/13 P	\$208,650.00 1339231/00636841, Agreed to delivery date change with supplier. 4 units shipped on 4/19/13 from GA to arrive 4/19 by 4/22. Two units failed one test and are to be retested on 04/22.
500kV 4000A Line Trap (1) (DOM)		03/15/13 A	Dominion Purchase - Received
Sub and Relay BOM Items	01/31/13 A	03/04/13 A	Multiple PO's and Warehouse Items

### **Major Project Risks**

Risk Item	Likelihood	impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
Late Delivery of Equipment	low	high	\$29,000	04/29/2013	Not triggered
Damage to Major Equipment	low	high	\$23,000	04/29/2013	Not triggered
Line and Breaker Clearance Restrictions	moderate	moderate	\$18,000	05/12/2013	Not triggered
Major storm takes construction resources away	low	moderate	\$8,000	05/12/2013	Not triggered
Scope changes during const.	moderate	moderate	\$20,000	05/12/2013	Not triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? Weeks

### **Project Information**

Project Name:	Durham - East Durham 230kV Line: Up-rate CT Ratios to 3000 Amps
Reporting Period:	April 2013
Project Manager:	Scott Jones (Duke-West); Billy Harrell (Duke-East)
<b>Current Phase:</b>	Closeout

### **Safety Summary:**

No safety incidents or events

### Scope of Work:

Up-rate CT ratios at the East Durham 230kV Substation and the Durham 500kV Substation to 3000/5 by modifying relay settings. No PEC work is required at the Durham 500kV Substation due to recent modifications that upgraded the relay settings to 3000A. Duke Energy will need to upgrade their relay settings at their East Durham 230kV Substation to 3000A. Duke will need to change out 5 meters and potentially a RTU at their East Durham 230kV Station. CT's in the circuit breakers will not require replacement.

### **Monthly Accomplishments:**

• Completed project installation at the East Durham 230kV Substation. This completes all construction activities for this project.

### **Challenges this Reporting Period:**

 Capturing and journaling the actual costs associated with project. Crews costs have been identified.

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$555,000	\$20,000	\$1,000	\$1,000	\$1,000	\$19,000

<sup>.</sup> Current estimate reflects Engineering's estimate to install meters.

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Complete Conceptual Design	07/01/12	07/19/12	07/19/12	Complete
Duke-West Design	07/23/12	12/31/12	12/31/12	Complete
Duke-East Commission (energize)	N/A	N/A	N/A	N/A
Duke Commission (energize)	01/02/13	01/03/13	01/03/13	Complete
Closeout	01/14/13	04/24/13	04/24/13	On Schedule

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
No major materials or services identified			

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
None					

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? weeks

### **Project Information**

Project Name:	Antioch 500/230kV Substation: Replace Two Transformer Banks
Reporting Period:	April 2013
Project Manager:	Scott Jones
<b>Current Phase:</b>	Engineering

### **Safety Summary:**

No safety incidents or events

### Scope of Work:

Currently, there is 1500 MVA of total installed capacity at the site. To meet the proposed capacity increase, the project will replace the existing transformer banks with two 1500 MVA banks for a total capacity of 3000 MVA. Project funding will provide for the entire capacity increase including these major activities: 1) Specification, award of order and delivery of the transformers; 2) Engineering and installation of electrical/relaying upgrades to the transformer protection scheme and the necessary 525kV/230kV switchyard civil modifications; 3) Installation of the new transformers including rigging/hauling from the rail siding to the transformer pads as well as the removal of the existing transformers. 4) Replacement of two 230kV over-dutied line breakers at Mitchell River Tie.

### **Monthly Accomplishments:**

- Work planning meeting held at the site with Duke Distribution to discuss changeover of station service from 13kV to 24kV. Distribution to do the work during fall outage.
- Bank 2 pad modifications started and should be completed in April.
- Mitchell River breaker change out electrical and substation design packages completed and sent to Carolinas West – North Region for implementation.
- Salvage Bid initiated for old transformers.

### **Challenges this Reporting Period:**

- Siemens Transformer Unit 1 failed during final testing. It was determined to be a design issue that was corrected with the other 3 units and this one as well. Shipping schedule has been impacted with Unit 1 to be shipped separately. The first 3 units will arrive on site as scheduled on August 15<sup>th</sup> while Unit 1 will arrive one site no later than September 15<sup>th</sup>. The fall outage window and work on Bank 2 is unaffected.
- Developing bid packages for substation construction.

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$50,310,000	\$31,239,000	\$306,000	\$270,000	\$31,240,000	(\$1,000)

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Award Transformer PO		09/18/12	09/12/12	Complete
Preliminary Design	10/2/12	12/19/12	12/7/12	Complete
Substation Engineering	2/5/13	05/13/13	05/13/13	On Schedule
Relay Engineering	2/5/13	05/13/13	05/1/13	On Schedule
NCDOT Bridge Permit	9/12/12	6/13/13	12/13/12	Complete
Modify Bank 2 Foundations	3/18/13	4/30/13	4/30/13	On schedule
First Transformers on Site at Antioch	8/15/13	08/15/13	08/15/13	On schedule
Construction – Bank 2	8/9/13	1/2/14	1/2/14	
Bank 2 Outage	9/16/13	12/1/13	12/1/13	
Second Transformers to Rail Siding	2/1/14	02/01/14	02/01/14	
Construction – Bank 1	2/1/14	6/1/14	6/1/14	
Bank 1 Outage	3/3/14	5/9/14	5/9/14	
Construction-Mitchell River Breakers	5/1/14	8/01/13	8/01/13	On schedule
Commission (energize)		06/01/14		

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
7- 560MVA 525kV/230kV Transformers	09/11/12 A	(4) - 08/15/13 P (3) - 02/15/14 P	Bid awarded to Siemens. \$19.4M, including installation.
2- 230kV Breakers	Stock	05/01/13	Part of Mitsubishi Blanket 2013
Engineered pole for 230kV bus line	3/15/13 A	8/15/13 P	Bid award to FWT
Station civil and bus line work	5/8/13 - P	6/21/13 - P	Pre-bid meeting set for May 16
Transformer Salvage	3/20/13 - P	5/1/13 - P	Bids due April 11, 2013. Salvage begins after end of 1 <sup>st</sup> outage

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
Transformer Delays (1 <sup>st</sup> Delivery of 4)	low	minimal	\$250,000	8/1/2013	Not triggered
Haul Path Delays	low	minimal	\$137,500	5/13/2013	Not triggered
Transformer Damage (1st Delivery of 4)	low	moderate	\$1,050,000	11/1/2013	Not triggered
Transformer Delays (2 <sup>nd</sup> Delivery of 3)	low	minimal	\$250,000	2/1/2014	Not triggered
Transformer Damage (2 <sup>nd</sup> Delivery of 3)	low	moderate	\$1,050,000	5/1/2014	Not triggered
Outage Window Change (Either outage window)	low	minimum	\$250,000	5/9/2014	Not triggered
Labor increases/Delays	low	moderate	\$1,137,500 \$848,500	6/1/2014	Triggered
Engineering Delays	moderate	minimal	\$125,000	7/1/2013	Not triggered
Material Delays	low	moderate	\$250,000	9/16/2013	Not triggered
Construction Conflicts	moderate	minimal	\$250,000	5/9/2014	Not triggered
Supplier	moderate	moderate	\$525,000	5/9/2014	Not triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? Weeks

Total: \$4,986,000 (EMV of remaining risks)

### **Project Information**

Project Name:	Person - (DVP) Halifax 230kV Line: Re-conductor DVP Section (DVP work)
Reporting Period:	April 2013
Project Manager:	Wayne Belvin (DVP)/ Billy Harrell (PEC)
Current Phase:	Execution - Design

### **Safety Summary:**

No safety incidents or events

### **Scope of Work:**

Upgrade the Person-Halifax 230kV line to 712 MVA (summer rating). DVP will re-conductor 20 miles of Dominion Virginia Power's section of the Person - DVP Halifax 230kV Line by replacing the existing 2-545.6 kcmil ACAR conductor. Work will be performed by DVP. Approximately 30 angle H-frame structures and approximately 20 tangent H-frame structures are anticipated to require replacement. Line clearances will be required to replace the angle structures. Billing will occur on a quarterly schedule and in advance of work performed. Once actuals are received the amounts will be evaluated and adjusted accordingly. Only relay setting changes are required at the Duke-PEC Person Substation.

### **Monthly Accomplishments:**

- Dominion line design is in progress.
- Dominion received the Corp of Engineers permit.
- Dominion has signed and approved the VMRC permit and issued back to VMRC with royalty fees. The executed permit is expected to be received by close of April 2013.
- LIDAR mapping will be utilized and staking of structures targeted to begin in May 2013 after corridor is mowed.
- Lay down yard has been prepared and is ready for use.
- Mowing of ROW targeted to begin by close of April 2013, to support surveying.
- The initial property owner notice of the project was issued by US Mail.

### **Challenges this Reporting Period:**

### Financial Summary (financial view with AFUDC and In-Directs)

Original Estimate at FERC Filing Plus AFUDC	Current Approved Target	Project To Date Actuals	Year to Date Actuals	Current Estimate	Variance (Target – Current Est.) FAV / (UNFAV)
\$16,200,000	\$21,128,000	\$131,000	\$67,000	\$21,128,000	\$0

No changes

### **Project Activities/Milestones**

Activity or Milestone	Planned Start Date	Planned Completion Date	Projected Completion Date	Completion Status *
Begin Conceptual Design	08/20/12	08/20/12	08/20/12	Completed
Complete Conceptual Design	11/30/12	11/30/12	11/30/12	Completed
Complete Line Engineering	12/03/12	05/01/13	05/01/13	On Schedule
Begin Line Construction	07/02/13	07/02/13	07/02/13	On Schedule
Complete Line Construction	07/02/13	06/01/14	06/01/14	
Person-Halifax Line Clearance	08/04/13	05/04/14	05/04/14	
DUK/PEC and Dominion Update Relay Settings at Person and Halifax	05/03/14	05/03/14	05/03/14	
Commission (Energize)	05/04/14	06/01/14	05/04/14	

<sup>\*</sup> behind-recoverable / behind-unrecoverable / on schedule / complete (blank = not started)

### **Major Materials and Services**

Major Materials & Services	Date Ordered / Issue Bid (actual or projected)	Delivery Date / Award Contract (actual or projected)	Comments
Poles (DVP)		07/2013	Dominion to procure
Conductor (DVP)		07/2013	Dominion to procure

### **Major Project Risks**

Risk Item	Likelihood	Impact Level	Est. Monetary Value (EMV \$'s)	Expiration Date	Status *
New 8 hr thermal rating could require modifications to the Duke Progress portion of this line.	Moderate	Moderate	\$148,000	12/31/12	Not Triggered
Dominion Virginia Power's Risk Contingency included in their estimate	Low	Moderate	\$2,000,000	6/1/2014	Not Triggered

<sup>\*</sup> Not triggered, Triggered-Estimated Delay=? Weeks Total: \$2,000,000 (EMV of remaining risks)

Potomac Economics, Ltd. 9990 Fairfax Boulevard. Suite 560 Fairfax, Virginia 22030



Telephone: 703-383-6270 Facsimile: 703-383-0796

June 13, 2012

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: Duke Energy Corporation, Progress Energy, Inc.

<u>Docket No. EC11-60-004</u>, et al.

Dear Ms. Bose:

Pursuant to the Commission's June 8, 2012 order in the above-captioned proceeding, the Commission ordered Interim Mitigation Measures to address market power concerns associated with the merger between Duke Energy Corporation and Progress Energy, Inc. ("the Companies"). The Interim Mitigation Measures require sales of capacity and energy pursuant to Power Sales Agreements (PSAs) that reduce the Companies' market share in certain relevant markets.

As the Independent Monitor, Potomac Economics, Ltd. ("Potomac Economics") is required to report within three business days certain outcomes of the PSAs. In particular, Potomac Economics is to report:

- When, and to what extent, any of the Buyers under the PSAs did not, in any hour, purchase the full amount of energy that the Companies are required to deliver under the PSAs.
- 2) When, and to what extent, any of the Buyers under the PSAs sell to the Companies an amount of energy or capacity exceeding five percent of the energy purchased by the Buyer under the PSA in that hour.

Accordingly, the following events require us to file a report:

- Buyer Force Majeure: Unforeseen circumstances beyond the reasonable control of the Buyer that prevent the Buyer from receiving power from the Companies under the PSAs. This also includes transmission constraints that may prevent the Buyer from delivering to a third party.
- (2) <u>Seller Force Majeure</u>: Unforeseen circumstances beyond the reasonable control of the Buyer that prevent the Companies from delivering power to the Buyer under the PSAs.

Order Accepting Revised Compliance Filing Slip Op. at ¶107, (June 8, 2012).

- (3) <u>Buyer Failure to Take Delivery not due to Force Majeure</u>: Buyer fails to take delivery of power for reasons other than Force Majeure in which case the Buyer is liable for damages.
- (4) <u>Seller Failure to Deliver not due to Force Majeure</u>: Seller fails to deliver power for reasons other than Force Majeure in which case the Seller is liable for damages.
- (5) <u>Purchases from a Buyer:</u> The Companies purchase power from a Buyer in excess of five-percent of the amount the Companies have contracted to sell to the Buyer for that hour.

On Saturday, June 8, the buyer under the 100 MW EDF-Progress PSA failed to schedule delivery for the hour ending 8 AM. This prevented the Companies from making delivery for this hour under the contract. Circumstances indicate that the buyer experienced temporary technical or process difficulties causing a failure to schedule for that hour. This event is classified under item (3) above, Buyer Failure to Take Delivery not due to Force Majeure.

Respectfully submitted,
POTOMAC ECONOMICS, LTD.

By: /s/ Robert A. Sinclair

Robert A. Sinclair, Vice President

Potomac Economics, Ltd. 9990 Fairfax Boulevard, Suite 560 Fairfax, Virginia 22030



Telephone: 703-383-6270 Facsimile: 703-383-0796

June 25, 2013

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: Duke Energy Corporation, Progress Energy, Inc.

<u>Docket No. EC11-60-004</u>, et al.

### Dear Ms. Bose:

Pursuant to the Commission's June 8, 2012 order in the above-captioned proceeding, the Commission ordered Interim Mitigation Measures to address market power concerns associated with the merger between Duke Energy Corporation and Progress Energy, Inc. ("the Companies"). The Interim Mitigation Measures require sales of capacity and energy pursuant to Power Sales Agreements (PSAs) that reduce the Companies' market share in certain relevant markets.

As the Independent Monitor, Potomac Economics, Ltd. ("Potomac Economics") is required to report within three business days certain outcomes of the PSAs. In particular, Potomac Economics is to report:

- 1) When, and to what extent, any of the Buyers under the PSAs did not, in any hour, purchase the full amount of energy that the Companies are required to deliver under the PSAs.
- 2) When, and to what extent, any of the Buyers under the PSAs sell to the Companies an amount of energy or capacity exceeding five percent of the energy purchased by the Buyer under the PSA in that hour.

Accordingly, the following events require us to file a report:

- (1) <u>Buyer Force Majeure</u>: Unforeseen circumstances that prevent the Buyer from receiving power from the Companies under the PSAs. This also includes transmission constraints that may prevent the Buyer from delivering to a third party.
- (2) <u>Seller Force Majeure</u>: Unforeseen circumstances that prevent the Companies from delivering power to the Buyer under the PSAs.
- (3) <u>Liquidated Damages</u>: (a) Companies' payment for replacement capacity and energy in circumstances when they do not deliver power to the Buyer pursuant to

Order Accepting Revised Compliance Filing Slip Op. at ¶107, (June 8, 2012).

the contracted amount or (b) Buyer's payment to Companies for capacity and energy that was not received by the Buyer pursuant to the contracted amount.

(4) <u>Sell-Back</u>: Circumstance when a Buyer has sold back power to the Companies in excess of five-percent of the contracted amount for that hour.

The Table below describes the particular instances that have prompted this report. These involve either the full amount of power not being delivered by the Companies, the full amount of power not being received by a Buyer, or a sell-back to the Companies.

Reason for Reporting	Contract	Date	Hour	Contract	Scheduled	Delivered	Difference
	Comaci	Date	Ending	(MW)	(MW)	(MW)	(MW)
Buyer Force Majeure	Cargill-Duke	6/22/2013	6	300	300	225	75
Buyer Force Majeure	Cargill-Duke	6/22/2013	7	300	300	225	75
Buyer Force Majeure	Cargill-Prg	6/22/2013	5	100	100	50	50
Buyer Force Majeure	Cargill-Prg	6/22/2013	6	100	100	50	50
Buyer Force Majeure	Cargill-Prg	6/22/2013	7	100	100	50	50
Buyer Force Majeure	EDF	6/22/2013	5	100	100	0	100
Buyer Force Majeure	EDF	6/22/2013	6	100	100	0	100
Buyer Force Majeure	EDF	6/22/2013	7	100	100	0	100
Buyer Force Majeure	Morgan Stanley	6/22/2013	5	300	300	207	93
Buyer Force Majeure	Morgan Stanley	6/22/2013	6	300	300	207	93
Buyer Force Majeure	Morgan Stanley	6/22/2013	7	300	300	207	93
Buyer Force Majeure	EDF	6/23/2013	7	100	100	25	75
Buyer Force Majeure	EDF	6/23/2013	8	100	100	0	100

In all instances in the table, the parties treated the events as buyer *force majeure*, as contemplated in by the Commission in its Order.<sup>2</sup> In all instances, the buyer could not deliver to PJM due to a PJM Minimum Generation constraint. The events reported in the table may be subject to further investigation by Potomac Economics in accordance with the Commission's order in this docket.

Respectfully submitted,

POTOMAC ECONOMICS, LTD.

By: /s/ Robert A. Sinclair

Robert A. Sinclair, Vice President

<sup>&</sup>lt;sup>2</sup> Op cit. at ¶99, (June 8, 2012).

Potomac Economics, Ltd. 9990 Fairfax Boulevard. Suite 560 Fairfax, Virginia 22030



Telephone: 703-383-6270 Facsimile: 703-383-0796

June 26, 2013

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: Duke Energy Corporation, Progress Energy, Inc.

<u>Docket No. EC11-60-004</u>, et al.

### Dear Ms. Bose:

Pursuant to the Commission's June 8, 2012 order in the above-captioned proceeding, the Commission ordered Interim Mitigation Measures to address market power concerns associated with the merger between Duke Energy Corporation and Progress Energy, Inc. ("the Companies"). The Interim Mitigation Measures require sales of capacity and energy pursuant to Power Sales Agreements (PSAs) that reduce the Companies' market share in certain relevant markets.

As the Independent Monitor, Potomac Economics, Ltd. ("Potomac Economics") is required to report within three business days certain outcomes of the PSAs. In particular, Potomac Economics is to report:

- 1) When, and to what extent, any of the Buyers under the PSAs did not, in any hour, purchase the full amount of energy that the Companies are required to deliver under the PSAs.
- 2) When, and to what extent, any of the Buyers under the PSAs sell to the Companies an amount of energy or capacity exceeding five percent of the energy purchased by the Buyer under the PSA in that hour.

Accordingly, the following events require us to file a report:

- (1) <u>Buyer Force Majeure</u>: Unforeseen circumstances that prevent the Buyer from receiving power from the Companies under the PSAs. This also includes transmission constraints that may prevent the Buyer from delivering to a third party.
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- (3) <u>Liquidated Damages</u>: (a) Companies' payment for replacement capacity and energy in circumstances when they do not deliver power to the Buyer pursuant to

Order Accepting Revised Compliance Filing Slip Op. at ¶107, (June 8, 2012).

the contracted amount or (b) Buyer's payment to Companies for capacity and energy that was not received by the Buyer pursuant to the contracted amount.

(4) <u>Sell-Back:</u> Circumstance when a Buyer has sold back power to the Companies in excess of five-percent of the contracted amount for that hour.

The Table below describes the particular instances that have prompted this report. These involve either the full amount of power not being delivered by the Companies, the full amount of power not being received by a Buyer, or a sell-back to the Companies.

Reason for Reporting	Contract	Date	Hour Ending	Contract (MW)	Scheduled (MW)	Delivered (MW)	Difference (MW)
Buyer Force Majeure	Cargill-Prg	6/24/2013	16	100	100	93	7
Buyer Force Majeure	Cargill-Prg	6/24/2013	17	100	100	93 83	, 17
Buyer Force Majeure	Cargill-Prg	6/24/2013	18	100	100	83	17
Buyer Force Majeure	Cargill-Prg	6/24/2013	19	100	100	83	17
Buyer Force Majeure	EDF	6/24/2013	16	100	100	87	13
Buyer Force Majeure	EDF	6/24/2013	17	100	100	67	33
Buyer Force Majeure	EDF	6/24/2013	18	100	100	67	33
Buyer Force Majeure	EDF	6/24/2013	19	100	100	67	33 33

In all instances in the table, the parties treated the events as buyer *force majeure*, as contemplated by the Commission in its Order.<sup>2</sup> In all instances, the buyer could not take receipt due to a TLR initiated by PJM. The events reported in the table may be subject to further investigation by Potomac Economics in accordance with the Commission's order in this docket.

Respectfully submitted,

POTOMAC ECONOMICS, LTD.

By: /s/ Robert A. Sinclair

Robert A. Sinclair, Vice President

<sup>&</sup>lt;sup>2</sup> Op cit. at ¶99, (June 8, 2012).

Potomac Economics, Ltd. 9990 Fairfax Boulevard. Suite 560 Fairfax. Virginia 22030



Telephone: 703-383-6270 Facsimile: 703-383-0796

June 28, 2013

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: Duke Energy Corporation, Progress Energy, Inc.

<u>Docket No. EC11-60-004</u>, et al.

Dear Ms. Bose:

Pursuant to the Commission's June 8, 2012 order in the above-captioned proceeding, the Commission ordered Interim Mitigation Measures to address market power concerns associated with the merger between Duke Energy Corporation and Progress Energy, Inc. ("the Companies"). The Interim Mitigation Measures require sales of capacity and energy pursuant to Power Sales Agreements (PSAs) that reduce the Companies' market share in certain relevant markets.

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- (3) <u>Liquidated Damages</u>: (a) Companies' payment for replacement capacity and energy in circumstances when they do not deliver power to the Buyer pursuant to

Order Accepting Revised Compliance Filing Slip Op. at ¶107, (June 8, 2012).

the contracted amount or (b) Buyer's payment to Companies for capacity and energy that was not received by the Buyer pursuant to the contracted amount.

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The Table below describes the particular instances that have prompted this report. These involve either the full amount of power not being delivered by the Companies, the full amount of power not being received by a Buyer, or a sell-back to the Companies.

Reason for Reporting	Contract	Date	Hour Ending	Contract (MW)	Scheduled (MW)	Delivered (MW)	Difference
Buyer Force Majeure	Cargill-Duke	6/25/2013	13	150	150	120	(MW)
Buyer Force Majeure	Cargill-Duke	6/25/2013	14	150	150		30
Buyer Force Majeure	Cargill-Duke	6/25/2013	20	150		135	15
Buyer Force Majeure	Cargill-Prg	6/25/2013	13		150	136	14
Buyer Force Majeure	Cargill-Prg		• -	100	100	86	14
•		6/25/2013	14	100	100	91	9
Buyer Force Majeure	Cargill-Prg	6/25/2013	20	100	100	94	6
Buyer Force Majeure	EDF	6/25/2013	13	100	100	73	27
Buyer Force Majeure	EDF	6/25/2013	14	100	100	82	
Buyer Force Majeure	EDF	6/25/2013	20	100	100		18
Buyer Force Majeure	Cargill-Duke	6/26/2013	10	(30)		88	12
Buyer Force Majeure				150	150	145	5
	Cargill-Prg	6/26/2013	10	100	100	96	4
Buyer Force Majeure	EDF	6/26/2013	10	100	100	93	7
Buyer Force Majeure	Morgan Stanley	6/26/2013	10	125	125	120	5

In all instances in the table, the parties treated the events as buyer *force majeure*, as contemplated by the Commission in its Order.<sup>2</sup> In all instances, the buyer could not take receipt due to a TLR event called by PJM. The events reported in the table may be subject to further investigation by Potomac Economics in accordance with the Commission's order in this docket.

Respectfully submitted,

POTOMAC ECONOMICS, LTD.

By: /s/ Robert A. Sinclair

Robert A. Sinclair, Vice President

<sup>&</sup>lt;sup>2</sup> Op cit. at ¶99, (June 8, 2012).